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"Coastal landscapes for whom? Adaptation challenges and landscape management in Cornwall"

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ABSTRACT

Many coastal landscapes across Europe are undergoing change due to the impacts of a changing climate. In the context of coastal erosion, especially the question of physical access to the landscape for a variety of publics is becoming ever more important. Where a multitude of actors are involved in landscape management, diverging subjective and collective perceptions of these changing landscapes, hold potential for disagreement about suitable adaptive measures. Although the body of literature on the role of subjective values in processes of climate adaptation is growing the societal constructions of respective places and landscapes underlying different adaptation approaches remain under-researched. We show in this paper that how landscapes are understood by actors in environmental management matters for decision-making. In particular, different understandings of the Cornish landscape at Godrevy Headland are shown to have material implications for how issues of access, visitor management and long-term responses to climate change and coastal erosion are addressed. In the case of Godrevy, coastal erosion has required local actors to plan the relocation of a visitor car park, bringing contrasting perspectives on the landscape, its use and protection to the fore. Uncovering the individual and collective assumptions about the landscape behind these conflicting narratives, is vital for fostering inclusive policy- and planning processes around climate change adaptation.

1. Introduction

Many coastal landscapes are changing due to the impacts of climate change: coastal erosion, increased wave action and extreme weather events change the physical-material fabric of coastal stretches of land [1–3]. Studying coastal management practices in the UK, Geoghegan and Leyshon [4] find that as the changing climate alters many coastlines, what becomes necessary is also "a changing philosophy and range of management techniques". Fischer and Reise [5] have similarly argued that coping with and responding to climate change at the coast constitutes a cultural challenge, requiring shifts in 'coastal mentalities', which in some cases, have emerged in association with specific material practices of land management and coastal protection over long periods of time. Where coastal erosion is accelerated by climate change, an issue likely to become more significant in the future is that of access to coastal landscapes for a variety of publics. In many cases landscapes are not managed by a single actor, but by a variety of organizations, governmental bodies and private land owners with often diverging interests [6]. It is recognized within and beyond human geography that collective and individual values shape processes of climate adaptation at the local level [7–9]. Recent studies have placed increased attention on the need to include lay knowledges and socio-cultural values in processes of coastal management, particularly concerning the development of long-term strategies for climate adaptation [10–12]. It is recognized, however, that the inclusion of multiple yet inconsistent knowledge systems within coastal management processes creates significant challenges of integration, translation and negotiation across differing epistemologies [10,13]. In an effort to move beyond established dichotomies between expert and lay knowledges, environmental management may usefully be viewed in terms of situated practices, informed by, often place-specific, nature-culture imaginaries [14,15]. Practices of coastal management and nature conservation are situated in the landscape, both materially and culturally [16,17]. The interrelationships between lay and expert or professional perspective have, however, received limited critical attention to date.

This study sought to progress this line of research through an examination of the landscape constructions and narratives underlying how local professional actors and stakeholders perceive and understand a specific coastal landscape [also 18]. It is furthermore evident that the current UK government policy of allowing coastal erosion to proceed

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along much of the UK's coast in the future will have substantial material implications for the maintenance and future sustainability of coastal infrastructure and the integrity of cultural heritage sites at the coast. It also represents a direct challenge to the credo of the National Trust to protect key landscapes 'forever, for everyone' as detailed below [19,20].

The paper argues that the adaptive management of both coastal and climate change requires engagement with the multiple and at times divergent conceptualisations of place and landscape by different local stakeholders. In coastal areas managed as common goods and with high numbers of visitors, one facet of such conceptualisations is the question of who should (and who should not) have access to the landscape [21]. The paper starts by setting out a theoretical background of social-constructivist landscape research, the relevance of understanding landscape as a commons and, in close connection to this, the question of access to the landscape. Subsequently, the case study area of Godrevy in Cornwall (UK) is introduced, a coastal headland managed by a variety of actors with competing interests. After the analysis of these actors' distinct perspectives on the local landscape, a discussion follows on how these perspectives inform and complicate local adaptation activities in response to coastal erosion in practice. We explore the specific material implications of different perspectives on a changing coastal landscape within the context of a specific management issue, the relocation of a car park due to coastal erosion.

2. Landscape narratives and questions of access

To understand the different viewpoints of the local actors in the Godrevy case and the disagreement between them, this paper draws on existing literature on the societal construction of landscapes as well as landscapes as common goods. Investigating the question of who should have access to the landscape and in which form, different perspectives on landscape and climate change are taken into account to unravel how societal processes of adaptation to coastal erosion are embedded in local contexts and grounded in different social constructions of the affected physical spaces.

2.1. A social-constructivist perspective on landscapes

From a positivist viewpoint, "[l]andscape is […] defined as a delimited section of the Earth's surface reflecting the sum of its component parts" [22]. Consequently, it is understood as a set of objects and characteristics existing independently from the observer [23,24]. Most positivist theories, thus, neglect the importance of socio-cultural values and meanings associated with different elements of landscapes, and therefore inadequately take into consideration their societal construction [25]. Addressing this shortcoming, social constructivist perspectives on landscape have developed over the past two decades where landscape is conceptualised in terms of "lived and subjectively perceived constructs rather than focusing on the quantifiable, 'objective' characteristics of spaces" [3,18,23,26]. Landscapes are thereby understood not as fixed physical entities, but as individual and collective mental constructs pertaining to external physical spaces. What is viewed as a landscape and what is not is therefore the result of negotiation processes within society. How any landscape is perceived by stakeholders and framed in policy processes is changeable, dynamic, and closely connected to prevailing societal values [21]. Central questions of social-constructivist landscape research in the context of this paper are: What do the different stakeholders at Godrevy mean when they use the term 'landscape'? What are the implications of different and contrasting interpretations of landscape at the same location? What understandings of environment-society relations and climate change underlie these perspectives [24,27]?

Greider and Garkovich [14,25] stress that most physical spaces that are used for one purpose are also used for another. More significantly, any landscape that is societally constructed "has multiple meanings", and variances between such meanings can lead to conflict and contestation among different groups within a society; especially when this space is undergoing change [24,25,28]. If landscapes are faced with change, a process of (re-)negotiation sets in within and between the different societal groups involved in their management. In the context of climate change, Köpsel et al. [21], found from interviews with actors in landscape management in Cornwall (UK) that uncovering diverging narratives of landscape and landscape management brings valuable insights into different actors' interpretations of landscape change and resulting approaches to climate change adaptation. Narratives in this context are understood as stories and storylines that people use to make sense of certain events or phenomena such as landscape or climate change [21,29]. Despite the value of a social-constructivist perspective on landscapes, however, "relatively little attempt has been made to think through the potential for this approach in understanding the socio-political relations of climate change" and the concrete physical implications for adaptive measures on the ground [20: 239]. Addressing this research gap, this paper first investigates how local actors make sense of a changing climate through the landscapes which they manage, and in a second step, identifies the implications of such landscape constructions for local adaptation activities. Before expanding on the research design and methodology of the Godrevy case study, however, two theoretical debates related to the phenomenon of landscape require closer attention: the idea of landscapes as commons and the question of who should have access to them.

2.2. Landscape as commons and questions of access

The Council of Europe [3,30] understands a landscape as "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors". This definition builds on an implicit assumption that certain landscapes are common goods of value to society at large [6]. Commons are defined by Ostrom [31] as goods that are not privately owned, but that are accessible to all groups of society. Gailing [18,32] finds in this context that when drawing "attention to the immaterial aspects of landscape, then […] landscape is a common". This interpretation of landscapes implies that to be a common good, a landscape does not need to be physically accessible to the public. This is especially relevant where a specific landscape is visible from accessible vantage points as is the case with many seascapes and mountain landscapes, and which is also partially applicable in the case of Godrevy headland. A landscape perceived to be of regional, national or global significance (e.g. World Heritage Sites) may also constitute a commons irrespective of local property relations [33]. The question of for whom the landscape should be physically accessible represents a key issue of contention in the Godrevy case study. In practice, issues of visual and physical accessibility are often intertwined.

At this point it is important to more precisely tease out the implications of an understanding of landscape as commons. Individual landscapes generally reflect a complex interrelationship of property rights, legal codes and community norms in the governance of the land. In this way, the boundaries between public and private become blurred. Legal scholar Mitchell [34: 353] stresses the need to move beyond established mutually exclusive categories of 'public' and 'private' with regard to rural spaces. He notes that private ownership does not necessarily imply exclusive control and should be placed in the context of a 'web of relations' including multiple public claims [34]. This web of relations becomes particularly complex where multiple sectoral interests, such as nature protection, tourism, agriculture, and spatial planning, are involved in the management of the landscape [23]. In cases of conflicting objectives between such actors, the management goals of one local actor cannot be carried out without impairing another's [35]. In Section 4.2 below, the specific implications of this are outlined for the Godrevy case study.

Despite increased attention to the spatiality of the commons,

existing studies have given surprisingly little attention to their management in multi-actor settings of conflicting interests [36,37]. An issue of particular importance when conceptualizing landscape as a commons is the question of who should have access to it and who should not, and which motives underlie these viewpoints [37]. This paper seeks to shift the focus of discussion on 'accessibility' in terms of physical access to particular sections of a landscape. We are not so much interested in who *is able* to access the landscape, but who *should be allowed* to access it from the perspectives of different landscape constructions. Despite the significance of the question of landscape access in multi-actor settings, empirical studies are rare. To better understand the societal embeddedness of conflicts around managing landscapes as a commons, it is the argument of this paper that it is vital to comprehend their local context, the constellation of actors, and the implications of distinct and divergent landscape narratives [31,37,38].

3. Case study and methods

The case study site of Godrevy is a coastal headland on the Atlantic coast of Cornwall (UK), a rural peninsula at the south westerly tip of the United Kingdom. Owned and primarily managed by the National Trust, Godrevy is an important visitor attraction in the region due to its iconic scenery and its diverse offers of outdoor activities [39–41]. The headland is characterized by a steep cliff coastline, maritime grassland and dunes, various beaches, as well as farmland in its centre (see Fig. 1). The nearest settlement is the village of Gwithian south of Godrevy. Although the headland is uninhabited, infrastructure in the form of a café, an access road, a coastal path, and two car parks is located at Godrevy. Besides the National Trust a variety of other actors are involved in managing the site, each with their own thematic focus. Among others, Godrevy headland covers an Area of Outstanding Natural Beauty (AONB), a Site of Special Scientific Interest (SSSI) looked after by Natural England, a Local Nature Reserve in the hands of Cornwall Wildlife Trust, and a tenanted and cultivated farm (see Fig. 2).

Impacts of the changing climate are already visible in Cornwall's landscapes in the form of tidal and river flooding as well as coastal erosion [1]. Climate change projections for south west England forecast a major increase in such episodes, as well as more frequent storms and heavy rainfall [1,2]. At Godrevy proceeding erosion of the soft rock cliff coast is threatening to undermine the existing infrastructure (see Fig. 3). With an average annual erosion rate of half a meter per year at average this road, running parallel to the South West Coast path on the site, is estimated to be undercut within the next four years [42,43]. In the 'Shifting Shores' strategy, one of the most important strategies of the National Trust regarding coastal change, the organisation connects the proceeding of coastal erosion across the UK closely to climate change [44,45]. Being the main land owner in the area, the organisation is planning to relocate the headland car park, coast path and access road to locations further inland, designating Godrevy as a case of climate change adaptation [46]. Currently in the pre-stage of the planning application, the Trust is seeking to find a compromise between all involved actors of possible new locations prior to entering the formal planning phase. These informal discussions have taken place for the past decade under the lead of the National Trust; despite the duration of the negotiations, however, no agreement could yet be reached.

To comprehend the differing viewpoints of the involved actors at Godrevy, this paper argues that it is crucial to uncover the local actors' distinct perceptions of the local landscape, both in terms of sensory perceptions of the physical landscape and the meaning and values attached to it, and to lay open the individual standpoints they have in the debate about access to Godrevy. An in-depth qualitative approach is especially fruitful to investigate landscape narratives and perceptions at Godrevy [18,47]. To identify distinct narratives of the Godrevy landscape and their material implications, in-depth qualitative research was carried out in Cornwall in the spring of 2016 with twelve local representatives of the National Trust, the AONB Partnership, Natural England, Cornwall Wildlife Trust, the Towans Partnership,[1] Visit Cornwall, the Cornwall Seal Group, the Parish Council of the neighbouring village, and local business owners. This range of interviewees was selected through a 'purposive' sampling strategy [48] to ensure that every stakeholder group involved in managing the Godrevy landscape participated in the study. Of particular importance in this paper's methodological approach was the use of semi-structured walking interviews; a form of qualitative interview carried out while walking across the physical space under investigation together with the participant. Belonging to the emerging field of 'mobile methods', walking interviews have gained popularity in recent years within ethnography and human geography [49]. Evans and Jones [50: 849] argue that "data generated through walking interviews [is] profoundly informed by the landscapes in which they take place, emphasizing the importance of environmental features in shaping discussions" around environmental management. We analysed the collected data through transcription, focused coding [cf. 51] and an identification of narratives following the method of Feldman et al. [52]. The following paragraphs outline the findings we obtained from the so-gathered data; findings that have important implications for comprehending the discussions around adaptation to coastal erosion at Godrevy as well as societal processes of climate change adaptation in a broader sense.

Fig. 1. Godrevy headland and Godrevy Beach.

4. Contrasting narratives of the godrevy landscape and their implications in practice

In their 2016 case study on the relationship between local landscape perceptions and climate change adaptation, Köpsel et al. [18] identify four prevailing narratives about Cornwall's landscapes among actors in environmental management in the area: the Cornish landscape perceived as (1) a preliminary result of human-environment interaction, (2) natural systems and wildlife habitats, (3) visual beauty, and (4) functional spaces of (agricultural) production. Each of these perspectives implies distinct approaches of responding to climate change (see Table 1; for extended version see [18: 181]). The ways in which the actors at Godrevy perceive the local landscapes shows how these narratives play out in a distinct local context and how they concretely influence adaptation activities on the ground.

The empirical data we obtained through walking interviews at Godrevy brings to light not only the different perceptions the involved actors have of the local landscape, but also valuable evidence of how they conceptualise the human-nature relationship and which are their distinct viewpoints on the question of access to Godrevy headland in

[1] The Towans (Cornish, meaning 'sand dunes') are a dune system stretching over 3 km from Godrevy as its most northerly point to the town of Hayle in the south. The dunes are managed by a partnership of local organizations and community representatives.

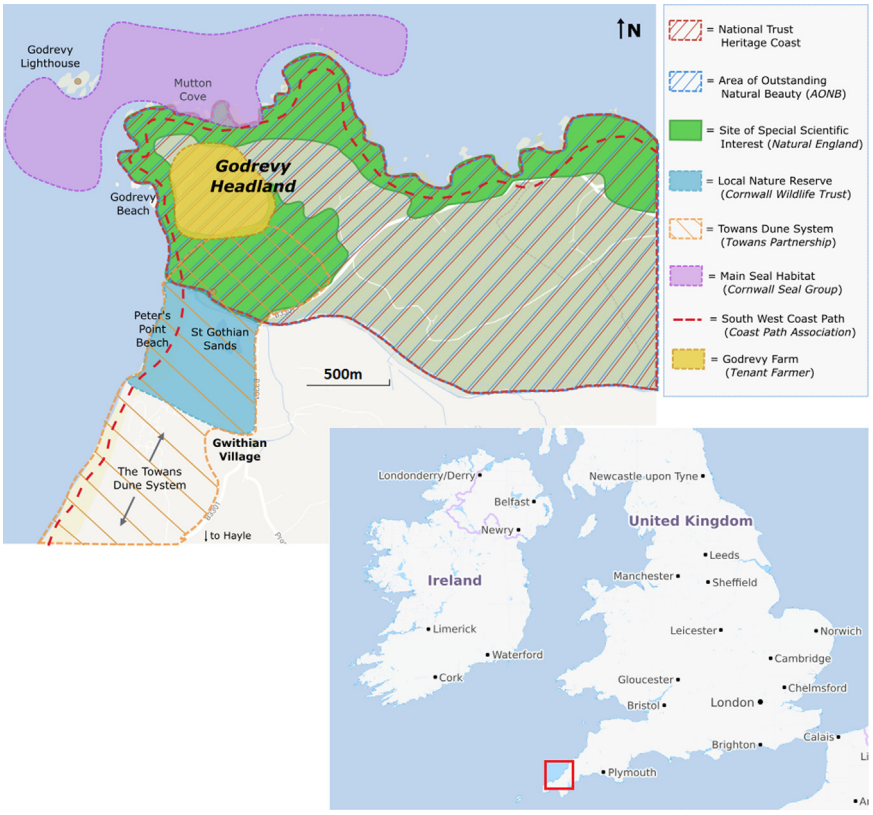

Fig. 2. Landscape designations at Godrevy.

Fig. 3. Coast path and access road close to the cliff edge at Godrevy.

the context of climate adaptation. Collectively, Godrevy is constructed as a visually appealing coastal landscape and a natural-looking stretch of maritime grassland. It is an important visitor attraction in the region due to its aesthetic qualities and the broad offer of outdoor activities such as walking, cycling, surfing, and enjoying the local beaches. When entering into dialogue with the local actors at Godrevy, however, a much nuanced picture of their constructions of the landscape comes to light that reveals quite contrasting perceptions by the different managing organizations. Two of these landscape narratives showed to be especially relevant for the discussion around the relocation of infrastructure at Godrevy: the landscape as human-environment interaction and as natural systems. In the following, we will briefly present the central points of both these narratives to subsequently highlight which implications they have for the local debate about access to the site and, consequently, for adaptation to coastal erosion.

4.1. Godrevy as a commons and questions of access

The National Trust constructs the Godrevy landscape as shaped by human-environment interactions since prehistoric times. Important features are both the natural elements such as the dunes and wildlife, as well as man-made ones like the lighthouse, the on-site café and walking paths. The staff of the Trust emphasize the significance of Godrevy as a visitor destination *"both for locals and tourists"* (I-G3, 12:45), thus clearly managing the site *for* people. Of particular importance in this context are the personal relationships these visitors have with Godrevy headland; whether they make use of the landscape daily during their leisure time or are attached to the place through repeated holiday stays. Godrevy is clearly constructed as a commons by the Trust. The organisation's slogan "Forever, for everyone" underlines its primary goal of landscape management: to enable access to the site whilst preserving its natural beauty [45]. Although visitors are the focus of the Trust's management activities, there is also recognition of the importance of the place being 'wild and natural' – after all this is what both locals and tourists appreciate about the site. Hence from the perspective of the human-environment narrative, Godrevy is *"a place that people can come, see the coast and really experience it"* (I-G3, 05:09).

Maintaining access to Godrevy and the path along its coastline is not only the wish of the National Trust, but also their legal duty under the UK's Public Rights of Way Act [53]. *How* people can access the site, however, is up to the decision of the Trust as the main land owner. Currently this access is provided through a narrow road running close to the cliff edge, a coastal path, and a smaller and larger car park. The Trust strongly focuses its management efforts on enabling also elderly and less mobile visitors to access the site. Therefore, the large car park on top of the headland is a crucial component of the access strategy, allowing visitors to park their cars by the cliff edge. Although this open access strategy clearly poses challenges to the site's natural environment, a staff member of the National Trust argues:

"There is such a long history of access here that we feel that we need to maintain that. […] To actually just say 'Switch it off, you can no longer go there', that's a different world. We feel that's not the right thing to do." (I-G5, 22:50)

However, maintaining access to Godrevy headland and the local beaches is not only important to the Trust as the main land manager but also to other involved organizations and local businesses. The owner of the surf school, for instance, relies on visitors who have access to the site and can park their cars close by. Both the natural environment and the landscape are thus managed from an anthropocentric perspective *for* people; either for the sake of their emotional attachments or for visual enjoyment and recreation.

The significance given by the National Trust and other local actors to enabling access to Godrevy headland is opposed by a narrative about the landscape as natural systems and a sensitive wildlife habitat. By Natural England, the Cornwall Wildlife Trust and the Towans Partnership, Godrevy is constructed as a stretch of *"coastal heath and maritime grassland"* that shelters rare species in need of protection from human interventions (I-G4, 19:20). Important components of the landscape are the dune system stretching south from Godrevy and the local fauna finding sanctuary in the dunes. Mutton Cove on the north side of the headland, moreover, is one of two major haul out sites for Grey Atlantic Seals in south west England. Acknowledging that the question of access is an ambivalent one at Godrevy, the interviewees from the Towans Partnership clearly wish to limit the amount of people coming to the site:

"We don't want to encourage too many people coming. […] I suppose the partnership's main thing is about the conservation of the dunes, and that means the plants and the flora and fauna." (I-G1, 15:54)

Despite the importance of the site for locals and visitors, landscape management from this perspective puts wildlife and habitat protection first. From the high numbers of visitors, so the argument states, arise negative impacts on the landscape such as the disturbance of sensitive wildlife. A particular concern in this context is the harmful impact of dogs and dog litter for the local ecosystem. The natural environment is perceived here as in need of active protection from human activity. Regarding the relocation of the car park and road away from the cliff edge, the question resulting from the natural systems narrative is whether it is desirable at all to provide access for visitors and cars to the coastline. Limiting the space for car parking in this context would constitute a welcomed control mechanism for how many people can visit the site at a time. Natural England in this context suggests providing public transport by mini bus from a further-away car park to the headland. Whereas the Towans Partnership is very strict in their views on public access to the area; Natural England and the Cornwall Seal Group welcome visitors to Godrevy provided they are *"aware of what is harmful behavior"* and the infrastructure has no negative visual impacts on the site (IG-9, 32:40).

The perspectives of the landscape narratives are distinct from each other, but not black and white. A representative of Natural England realistically admits that *"it would be completely unrealistic to not be concerned with the people as well. […] People are coming here and we hope they will contribute to the economy."* (I-G1, 16:10). Nonetheless, the organizations following the natural systems narrative strongly focus their adaptive activities on averting potential negative impacts of the road relocation on sensitive local wildlife. The question of access at Godrevy therewith opens up a much broader discussion between the involved actors about whether to tolerate people in the landscape or not; a debate that makes the negotiations about how to adapt to coastal erosion lengthy and difficult.

4.2. Landscape narratives on the ground: practical implications

The Godrevy case study constitutes a multi-actor setting where contrasting perceptions of the local landscape, climate change and coastal erosion influence the decision-making process about how best to adapt to a changing coastline. The site is therefore described by a number of local actors as a first example of conflict about climate change adaptation in Cornwall (I-G3, I-G5, I-G11) [cf. 21]. The previous paragraphs showed that the contrasting narratives about the landscape play central roles in what fuels this disagreement. While these viewpoints remain relatively theoretical in the above discussion, concrete physical implications for the relocation of Godrevy's road and car park result from these narratives. The societal constructions of the landscape as human-environment interaction and natural systems thus have important practical relevance for the actual coastal management processes on the ground. Moreover, whereas in an *"ideal world where you owned everything and you had unlimited money"* (I-G5, 25:10) the National Trust could decide freely where to relocate their infrastructure to, existing property relations and landscape designations decisively limit the organisation's scope of action. Whereas the locations of the current access road and coast path are owned by the National Trust, the sections inland from those are not in all cases. A braid of tenanted farmland, privately owned land and protected wildlife sites reduce the options the National Trust has for moving the infrastructure further inland to maintain access to the headland (see Fig. 4).

At the nexus of the contrasting landscape narratives and the limiting local property relations particular suggestions arise among the different actors of how to reshape the infrastructure on Godrevy headland in response to coastal erosion. To highlight the material implications of the narratives, the subsequent figures exemplify the disagreement between the local actors and visualise how different their concrete suggestions for relocation are. For reference, Fig. 4 includes the current position of the headland car park and the existing access road (marked in red). Two of the relocation suggestions deriving from the interview data are particularly suitable to demonstrate how contrasting the local organizations' viewpoints on the relocation activities are: that of the National Trust and that of Natural England (for the complete set of maps illustrating the local debate about erosion see [21]). Following the human-environment narrative and considering the ownership patterns on the headland, the National Trust would prefer to relocate the road and car park as shown in Fig. 5 by moving the car park to three of the farmed fields of Godrevy Farm and re-routing the access road through a protected, privately-owned dune area (Fig. 5, dark green section). *"Moving the car park into the farmland over there which has little wildlife value […] will be a value to the landscape"*, argues a representative of the Trust (I-G5, 19:45). Although this new road would cut through an area of nature protection, it would comfortably maintain the access to Godrevy headland for locals and tourists.

A contrasting suggestion for the new infrastructure comes from Natural England. Following the natural systems narrative, for them active wildlife protection stands in the focus of landscape management at Godrevy. The organisation's local staff sees

"lots of reasons to think why we shouldn't encourage a new car park at this location or the realignment of the road. Rather let the land revert to dune grassland, maritime grassland." (I-G4, 58:55)

Their major worry in this context is that the route for the new road suggested by the National

Trust would cut through the protected dune system south of the farm. Due to its protected status *"it's not easy to re-draw the line"* of the site (I-G4, 8:58), and the Trust needs consent from Natural England to do so. Considering the management goals of the natural systems narrative, however, this consent is unlikely to be given. Instead, the interviewees from Natural England suggest relocating the car park to outside the core area of Godrevy to St Gothian Sands, a disused mining pit south of the headland (see Fig. 6).

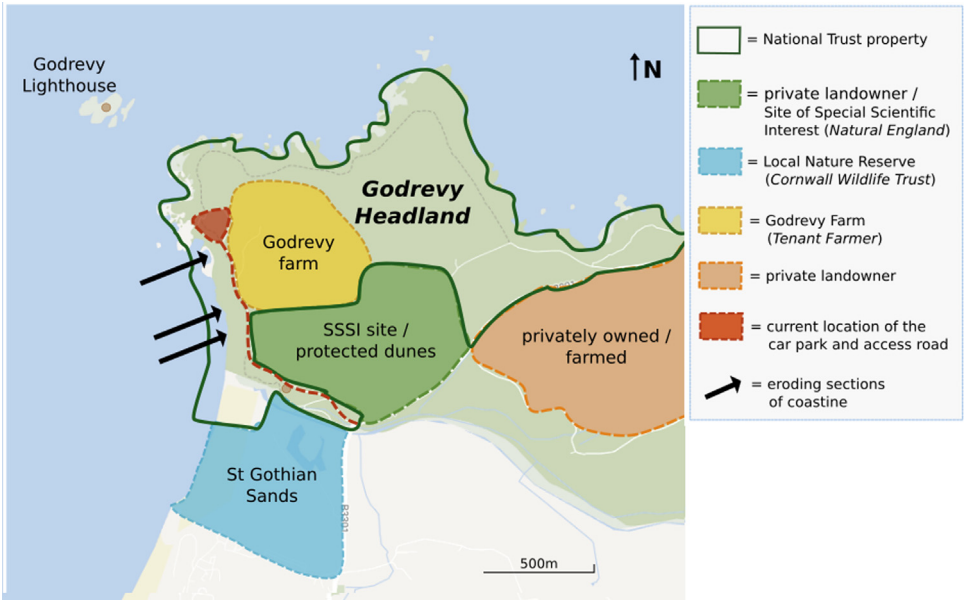
Godrevy Lighthouse
N
Godrevy Headland
Godrevy farm
SSSI site / protected dunes
privately owned / farmed
St Gothian Sands
500m
= National Trust property
= private landowner / Site of Special Scientific Interest (Natural England)
= Local Nature Reserve (Cornwall Wildlife Trust)
= Godrevy Farm (Tenant Farmer)
= private landowner
= current location of the car park and access road
= eroding sections of coastine

Fig. 4. Ownership structures at Godrevy.

Considering how different the proposed new locations for the road and car parks are, it becomes clear how important it is to understand the landscape constructions and individual viewpoints on access to Godrevy headland that underlie the concrete suggestions by the National Trust and Natural England. The contrasting narratives thus do not only show how different the perceptions of a landscape can be in the same location, but that these perspectives have direct influence on local activities of coastal management and climate adaptation on the ground.

5. Discussion

We highlighted in the introduction of this paper that recent literature emphasises the need for greater consideration of social values and diverse knowledge systems in policy-making around and management of coastal change [e.g. 10, 16, 17]. What is consequently needed is not only an improved understanding of the subjective values and perceptions underlying these processes, but also of the ways in which such different perspectives shape local debates, actor constellations and the

Fig. 5. The National Trust's Suggestion: Converting Farmed Fields.

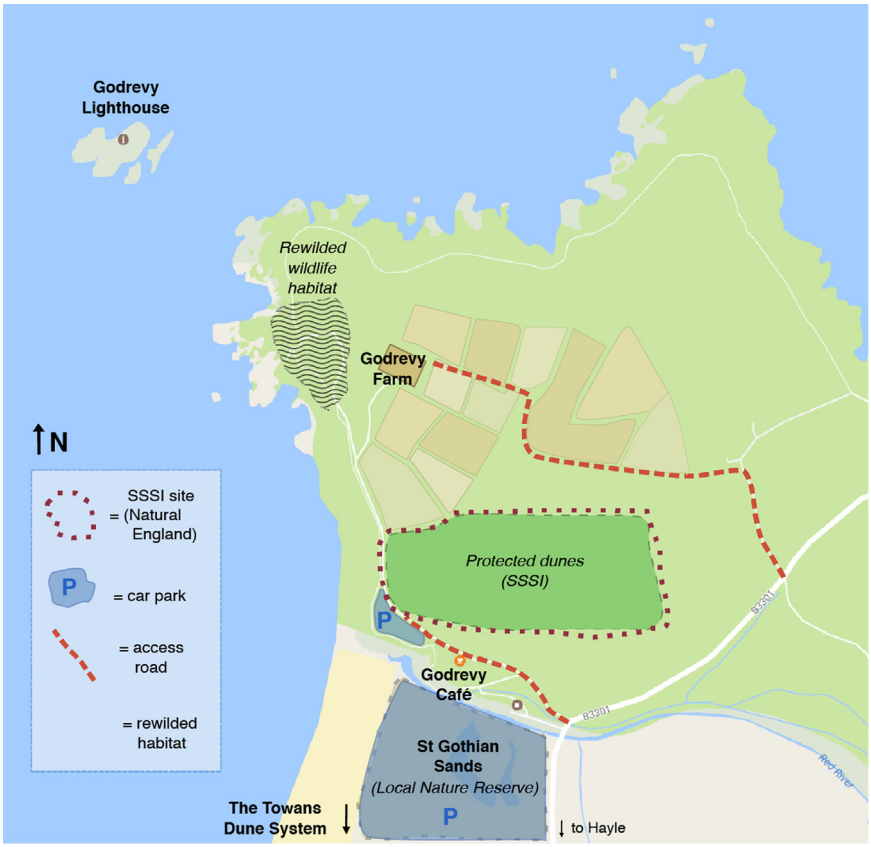

Fig. 6. Natural England's Suggestion: Relocation to St Gothian Sands.

implementation of adaptation measures on the ground. The empirical data from the Cornwall case study presented in this paper shows how the management of coastal erosion must be understood as a locally-embedded societal process informed by diverse individual and shared values and perspectives.

For local actors in environmental management, the Godrevy landscape is laden with meanings and attachments that refer to, but are not reducible to, different facets of the physical-material space of the coastal headland. At the nexus of varying perceptions of landscape, nature and climate change, emerges a distinct local debate about whether or not access should be granted to people, whether visitor as or locals, to the landscape. In line with recent contributions to the literature, we contend that practices of coastal management and adaptation must be understood as situated within specific local contexts and actor constellations, and that the debates that arise on the ground can only be understood in the light of this local embeddedness [e.g. 15, 54]. Attention to the plurality of landscape narratives at Godrevy and their underlying value and assumptions helps to understand the process of negotiating the future location of the visitor car park and, perhaps more importantly, what is at stake in this process. Adaptive management processes elsewhere should seek to explicitly include and address multiple ways of knowing and working with the landscape and coast at an early stage in the decision-making process.

Geoghegan and Leyshon[20: 64] find that it is “landscapes in which the problem of climate change and its solutions will be made real” through sense-making processes at the local level. Such processes include negotiations among local actors about what those landscapes are and what they should be in the future, based on their individual constructions and the resulting viewpoints on the question of access to them. Inquiring about different actors’ constructions of ‘their’ local landscape thereby “provides a vehicle for interpreting the sociocultural consequences of […] environmental change from the diverse perspective of all participants” involved in such negotiation process [14,25]. At Godrevy in Cornwall (UK), landscape change through accelerated erosion – clearly connected to climate change by the National Trust – sparks a discussion about and re-negotiation of what the local landscape is, and for whom it is managed. At first glance the headland appears to be a relatively undeveloped piece of land with many potential locations for a new road and car park. However, in exchange with the involved local actors the complexity of the debate about the relocation activities at the site becomes visible. The main points of conflict are the normative question of who should have access to the landscape and in which form on the one hand, and the practical complications caused by local structures of ownership and land management on the other. Different perceptions of landscape, nature, and coastal erosion result in significantly varying viewpoints on how the headland should best be managed under a changing climate. Although the adaptive measures planned at Godrevy occur at a relatively small spatial scale, they nevertheless constitute a valuable in-depth case study highlighting the implications of differing conceptualizations of a landscape for coastal management in times of change.

On a theoretical level, the case of Godrevy highlights the utility of a social-constructivist approach to researching people's perceptions of place and landscape for understanding local actors’ conflicting standpoints in processes of landscape management and, in this case, adaptation to coastal erosion. The approach to landscape research applied in this study resulted in valuable empirical findings concerning the influence of different such constructions on multi-actor processes of environmental management and climate adaptation. This paper thus importantly contributes to improving the existing understanding of the embeddedness of local spatial management processes within their societal contexts. With regards to policy processes concerning the management of coastal landscapes, this study clearly shows that the question of physical access to the landscape is contested based on differing landscape constructions and conceptualizations of nature – highlighting the need to recognize the case-specific contexts and practical

limitations that shape how adaptation strategies to coastal erosion and climate change are implemented on the ground. After all, any future physical-material re-shaping of a landscape is firmly rooted in participant actors' current understandings of this landscape and their experiences of past change. To understand their different and at times contrasting viewpoints in these local discussions, it is vital to comprehend the normative and practical considerations that underlie their arguments and approaches to landscape management. The social-constructivist view on landscape suggested in this paper contributes to revealing these unspoken assumptions underlying conflicting perspectives in debates about adaptive coastal management, and it can create an important foundation for collaborative dialogue. The Godrevy case study highlights in particular the need for practical considerations of property ownership to be placed within their wider context with due regard for the specific qualities of the landscape as whole. This implies recognition of landscapes as a form of commons, acknowledging the plurality of meanings attached to that landscape by local actors and their influence on decision-making in practice.

6. Conclusions

Coastal landscapes worldwide will be significantly impacted by anthropogenic climate change. Rising sea levels, increased frequency and severity of storm surge events and accelerated coastal erosion will require adaptive, flexible and imaginative responses. This paper demonstrates that management responses need to take much more than the material landscape and its physical properties into account, but to recognize how coastal landscapes are embedded within and co-constructed through complex webs of property relations and management regimes, each informed by their own rationalities and values. Professional perspectives on the landscape are informed by subjective, experiential and place-specific ways of knowing, reading and working with the landscape. As a consequence, professional, expert and lay perspectives are intertwined with no clear, hard and fast, distinction between the two. Professional knowledges are also situated, context-specific and informed by socio-cultural values. Previous studies have highlighted the implications of different perspectives on coastal change between for example coastal engineers and nature conservationists or between advocates of traditional and alternative, soft approaches to coastal defence [e.g. 15, 16]. This paper demonstrates that landscape perceptions and narratives may also differ significantly among actors and stakeholders with ostensibly similar goals. Behind a shared desire to protect the coastal landscape of Godrevy Headland, lie contrasting positions concerning the relationship between at times potentially conflicting objectives of nature conservation and visitor access management. It is to be expected that the challenges of accommodating multiple spatial claims on and within coastal landscapes will become more and not less acute in future decades as the spatial implications of adaptation to climate change at the coast become more increasingly evident. In this respect, we can speak of a new, accentuated form of 'coastal squeeze', perhaps specific to the Anthropocene, as the demands of climate adaptation and an increased density of socio-cultural, economic and moral claims on the coast compete for space at the liminal boundary between the land and the sea [55,56].

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